

REMARKS

In the patent application, claims 1-26 are pending. Claims 10, 15 and 23 are allowed and claims 1-9, 11-14, 16-22 and 24-26 are rejected.

Applicant has amended claims 1, 17 and 24 to include the limitation that the first amount of light is emitted by the first light emitter and reflected by the object, and the second amount of light is emitted by the second light emitter and reflected by the object, and that the change in the first amount of light and the change in the second amount of light are compared in order to determine the location of the object in the designated interaction area. The support for the amendment can be found in Figures 1 and 2a, and lines 13-26. No new matter has been introduced.

At section 3 of the Office Action, the Examiner rejects claims 24-26 under 35 U.S.C. 102(a) as being anticipated by *Fitzgibbon* (U.S. Patent No. 4,710,759). The Examiner states that *Fitzgibbon* discloses a system as claimed.

It is respectfully submitted that *Fitzgibbon* determines which two of the energy paths are blocked by an object touching the screen by measuring the energy as received by the horizontal and vertical detectors. *Fitzgibbon* does not measure the change in the amount of light reflected by the object as claimed in claim 24. Thus, claim 24 is clearly distinguished over the cited *Fitzgibbon* reference.

As for claims 25 and 26, they are dependent from claim 24 and recite features not recited in claim 24. For reasons regarding claim 24 above, it is respectfully submitted that claims 25 and 26 are also distinguished over the cited *Fitzgibbon* reference.

At section 4 of the Office Action, the Examiner rejects claims 1-3, 5 and 17 under 35 U.S.C. 102(b) as being anticipated by *Kuth et al.* (U.S. Patent No. 5,726,685, hereafter referred to as *Kuth*). The Examiner states that *Kuth* discloses a method and device for sensing and

detecting the presence of an object by using a light sensor (4) to detect the reflected light from the object.

It is respectfully submitted that *Kuth* discloses a method of determining the position of an input element 2 by using a camera 4 to view the input element, wherein a sharpness plane is set in front of the glass plate 1 so that the input element is considered as being in “optical contact” with the plate 1 when the input element is located at a distance less than an upper range of 3mm through 5mm in front of the plate 1 (col. 3, lines 10 - 21). In that context, the camera is used to acquire an image of the input element for determining the lateral position of the input element in the “optical contact” plane in order to simulate the movement of a computer mouse on a plane. The light source 3 is used only to illuminate the input element so that the camera is able to acquire the image of the input element. Using this position determining method, only one illuminating light source is sufficient. Furthermore, if the input element is self-illuminated, as shown in Figure 4, the image of the input element can be acquired by the camera even without having the light source 3. This is to show that *Kuth* does not disclose or even suggest that the change in the amount of light emitted by one light source and reflected by the input element, and the change in the amount of light emitted by another light source are separately measured and then compared in order to determine the position of the input element relative to the two light sources. Moreover, in order to define the sharpness plane and to form an image on the image plane of the camera, a camera lens is required (see Figures 1, 3 and 4) to focus the image on a plurality of camera elements (col. 3, lines 10-12).

In the invention as claimed in claims 1 and 17, a light receiver is used to measure separately the changes in the first amount and second amount of light. In contrast, *Kuth* requires a plurality of camera elements.

For the above reasons, it is respectfully submitted that claims 1 and 17 are clearly distinguishable over the cited *Kuth* reference.

As for claims 2, 3 and 5, they are dependent from claim 1 and recite features not recited in claim 1. For reasons regarding claim 1 above, it is respectfully submitted that claims 2, 3 and 5 are also distinguishable over the cited *Kuth* reference.

At section 5, claims 1-9, 11-14, 16-18, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by *Weissmueller et al.* (U.S. Patent No. 4,459,479, hereafter referred to as *Weissmueller*). The Examiner states that *Weissmueller* also discloses that the light receiver is capable of receiving a first amount of light and a second amount of light via reflection at reflection components 42 and 44. However, *Weissmueller* does not disclose or even suggest that each of the first amount of light and the second amount of light is reflected from the object that the user uses to interact with the touch pad as claimed in claim 1, or that each of the first amount of light and the second amount of light is reflected from the object that causes the changes in the first amount and the second amount when it is present at the touch pad device as claimed in claim 17.

For the above reasons, it is respectfully submitted that claims 1 and 17 are clearly distinguishable over the cited *Weissmueller* reference.

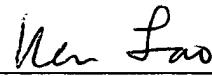
As for claims 2-9, 11-14, 16, 18, 21 and 22, they are dependent from claims 1 and 17 and recite features not recited in claims 1 and 17. For reasons regarding claims 1 and 17 above, it is respectfully submitted that claims 2-9, 11-14, 16, 18, 21 and 22 are also distinguishable over the cited *Weissmueller* reference.

It is respectfully submitted that the Final Office Action was mailed on July 11, 2003 and the amendment in response to the Final Office Action was mailed on August 4, 2003. The Advisory Action was mailed on November 25, 2003. Under 37 CFR 1.136(a), the period for reply expires on the mailing date of this Advisory Action. Application herein requests for a one-month extension of time and pays a fee as set forth in 37 CFR 1.17(a)(1). If, however, any additional extension of time is required, please charge the additional fees to account 23-0442.

CONCLUSION

Applicant has amended claims 1, 17 and 24 to further distinguish the claimed invention over the cited *Fitzgibbon*, *Kuth* and *Weissmueller* references. As amended, claims 1-9, 11-14, 16-22 and 24-26 are allowable. Early allowance of claims 1-9, 11-14, 16-22 and 24-26 is earnestly solicited.

Respectfully submitted,



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